**CLAIMS AMENDMENTS** 

Claim 1 (currently amended) For a vertical <u>flow</u> cryogenic liquid turbine generator

having main product-lubricated bearings separated by a span of shaft and a thrust equalizing mechanism

adjacent one of said main bearings, the lubricated bearings having bearing blocks, the thrust mechanism

comprising a thrust plate, variable orifice and fluid chamber, the fluid chamber fluidically coupled to the

variable orifice, an improvement comprising a stationary spacer composed of material that shrinks less

than the shaft of the generator interposed between the thrust plate of the thrust equalizing mechanism and

the bearing blocks of its adjacent main bearing to reduce the span between said main bearings.

Claim 2 (canceled)

The improvement according to claim 1 wherein the height of Claim 3 (previously presented)

the spacer is selected such that it is operative over the temperature range of the cryogenic liquid turbine

generator.

Claim 4 (canceled)

Claim 5 (currently amended) For a vertical flow cryogenic liquid turbine generator

having product-lubricated main bearings separated by a span of shaft and a thrust equalizing mechanism

which includes a stationary thrust plate adjacent one of the main bearings and a variable orifice defined

between the thrust plate and a throttle plate affixed to the shaft, an improvement comprising a stationary

length compensator interposed between the thrust plate and its adjacent main bearing to space said

adjacent main bearing from the thrust plate in order to reduce the span between said main bearings,

wherein the spacer is composed of material that shrinks less than the shaft of the generator.

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Claim 6 (canceled)

Claim 7 (previously presented) The improvement according to claim 5 wherein the heights

of the thrust plate and the length compensator are selected such that they are operative over the range of

operating temperatures of the cryogenic liquid turbine generator.

Claim 8 (canceled)

Claim 9 (currently amended) For a vertical flow cryogenic liquid turbine generator

having product-lubricated main bearings separated by a span of shaft and a thrust equalizing mechanism

which includes a stationary thrust plate adjacent one of the main bearings, an improvement comprising

stationary means interposed between the thrust plate and its adjacent main bearing to space said adjacent

main bearing from the thrust plate in order to reduce the span between said main bearings, wherein the

spacer is composed of material that shrinks less than the shaft of the generator.

Claim 10 (canceled)

Claim 11 (previously presented) The improvement according to claim 9 wherein the height

of said means is selected according to desired thrust equalizing mechanism such that they are operative

over the temperature range of the cryogenic liquid turbine generator.

Claim 12 (canceled)

Claim 13 (currently amended) For a vertical <u>flow</u> cryogenic liquid pump having main

product-lubricated bearings separated by a span of shaft and a thrust equalizing mechanism adjacent one

of said main bearings, an improvement comprising a stationary spacer interposed between the thrust

equalizing mechanism and its adjacent main bearing to reduce the span between said main bearings,

wherein the spacer is composed of material that shrinks less than the shaft of the pump.

The improvement according to claim 13 wherein the height Claim 14 (previously presented)

of the spacer is selected such that it is operative over the temperature range of the cryogenic liquid pump.

For a vertical flow cryogenic liquid pump having product-Claim 15 (currently amended)

lubricated main bearings separated by a span of shaft and a thrust equalizing mechanism which includes a

stationary thrust plate adjacent one of the main bearings and a variable orifice defined between the thrust

plate and a throttle plate affixed to the shaft, an improvement comprising a stationary length compensator

interposed between the thrust plate and its adjacent main bearing to space said adjacent main bearing from

the thrust plate in order to reduce the span between said main bearings, wherein the spacer is composed of

material that shrinks less than the shaft of the pump.

Claim 16 (previously presented) The improvement according to claim 15 wherein the

heights of the thrust plate and the length compensator are selected such that they are operative over the

range of operating temperatures of the cryogenic liquid pump.

For a vertical flow cryogenic liquid pump having product-Claim 17 (currently amended)

lubricated main bearings separated by a span of shaft and a thrust equalizing mechanism which includes a

stationary thrust plate adjacent one of the main bearings, an improvement comprising stationary means

interposed between the thrust plate and its adjacent main bearing to space said adjacent main bearing from

the thrust plate in order to reduce the span between said main bearings, wherein the spacer is composed of

material that shrinks less than the shaft of the pump.

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Claim 18 (previously presented) The improvement according to claim 17 wherein the height of said means is selected according to desired thrust equalizing mechanism such that they are operative over the temperature range of the cryogenic liquid pump.

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